**Extra Fathom instructions for Body Measurements Project:**

**Male & Female residual plots:**

* Create a scatterplot (height versus 1 of the variables)
* Put the LSR line on the plot
* Add the residual plot
* Now drop GENDER into the center of the plot
* You will see 2 LSR lines below the plot- one for male & one for female. DO NOT USE THESE EQUATIONS ON YOUR POWER POINT! You need to find the MODEL for male and female LSR lines. Instructions below.
* Click on the male LSR line. The residual plot below is for the MALES only. You can use this on your power point. Use the snipping tool to put it on the power point.
* Click on the female LSR line. The residual plot below is for the FEMALES only. You can use this on your power point. Use the snipping tool to put it on the power point.

**Getting Male & Female LSR lines (using MODEL)**

* First we will separate the male and female height data. To do this:
* In your table/spreadsheet of your data, go to a <NEW> variable spot. Name it “HEIGHT\_M” for Male heights
* Go to the TABLE MENU, and click on SHOW FORMULAS. A gray row will appear at the top of the table, below the variable names.
* Double click on the gray formula box that is below the “HEIGHT\_M” variable. A formula window should appear.

NOTE: where it says “male”, you need to use the name of your male variable. For example, if you used “M” for male, then you need to put in “M”, not “male”

* In the formula window, type the following:

if ( gender = “male”)

This should give you a list of only male heights.

* Now you can create a model of your measurement 1 (x variable) vs. male heights (y-variable) by using this new list as the y-variable in the model. (see Fathom instructions for how to create a MODEL to get the LSR line) You can do this for all 3 of your measurements- just drop the other measurements into the model (for the x-variable) and it will change it.
* Repeat the same process above to get a list of the female heights, and use these to create models for the female heights.

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